UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/527,888	03/15/2005	Patrick Galili	FR 020096	5845

65913	7590	12/06/2007		

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EXAMINER
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ART UNIT	PAPER NUMBER
2611	

NOTIFICATION DATE	DELIVERY MODE
12/06/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/527,888	GALILI ET AL.
	Examiner	**Art Unit**	
	Kenneth Lam	2611	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>15 March 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-7</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-7</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>15 March 2005</u> is/are: a)☐ accepted or b)☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date <u>11/03/2005</u>.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Drawings

1.   Figure 1 should be designated by a legend such as --Prior Art-- because only

that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in

compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid

abandonment of the application. The replacement sheet(s) should be labeled

"Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct

any portion of the drawing figures. If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office

action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the
> invention by the applicant for patent; or (2) a patent granted on an application for patent by another filed in
> the United States before the invention by the applicant for patent, *except* that an international application
> filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of
> an application filed in the United States only if the international application designated the United States and
> was published under Article 21(2) of such treaty in the English.

3.   Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Wang et

al. (Wang herein after) (US 7,200,799 B2).

Re Claims 1 and 4, Wang discloses a method and a decoder for decoding data, said method comprising iterations with some steps (SISO1, SISO2) (SISO decoder 1 **221**, SISO decoder 2 **222**, Figure 2B) using windows (WID) (segmented sliding window, column 7 line 35 – column 8 line 27) of input data, characterized in that the method comprises, for a current window (WID) of a step (SISO1, SISO2) within an iteration the steps of:

Performing a forward recursion (column 3 line 54 – column 4 line 13), wherein said forward recursion is initialized with a forward state metric vector (α) from a upper stake (STK) of a previous window of the same step (SISO1, SISO2) of a previous iteration (Figure 4, column 7 line 35 – column 8 line 27), a window (WID) comprising a lower and an upper stake (STK) (Figure 3, column 4 line 21 – column 5 line 24), and

Performing a backward recursion (column 3 line 54 – column 4 line 13), wherein said backward recursion is initialized with a backward state metric vector (β) from a lower stake (STK) of a next window of the same step (SISO1, SISO2) of a previous iteration (Figure 4, column 7 line 35 – column 8 line 27).

Re Claim 2, Wang discloses a method as claimed in claim 1, characterized in that the forward state metric vector (α) computed last is stored in an upper stake of said current window (WID) during the forward recursion, and the backward state metric vector (β) computed last is stored in the lower stake (STK) of said current window (WID) during the backward recursion (Figure 3, column 4 line 21 – column 5 line 24).

Re Claim 3, Wang discloses a method as claimed in claim 1, characterized in that all the windows (WID) of a step (SISO) are processed in parallel (column 7 line 36 – column 9 line 6).

Re Claim 5, Wang discloses a receiver adapted to receive input data, said input data being processed by the decoder as claimed in claim 4 (Figure 1).

Re Claim 6, Wang discloses a computer program product for a receiver, comprising a set of instructions which, when loaded into said receiver, causes the receiver to carry out the method as claimed in claims 1 to 3 (column 16 lines 16-54).

Re Claim 7, Wang discloses a computer program product for a computer, comprising a set of instructions which, when loaded into said computer, causes the computer to carry out the method as claimed in claims 1 to 3 (column 16 lines 16-54).

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Chass et al., US 2001/0054170 A1

  Apparatus and Method for Performing Parallel SISO Decoding

- Classon et al., US 6,901,117 B1

  Soft Output Decoder for Convolutional Codes

- Beerel et al., US 7,197,691 B2

  Reduced-Latency Soft-In/Soft-Out Module

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Lam whose telephone number is (571) 270-1862. The examiner can normally be reached on Mon - Thu 7:30 am - 5:00 pm EST ALT Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shuwang Liu can be reached on (571) 272-3036. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KENNETH LAM/
11/30/2007

SHUWANG LIU
SUPERVISORY PATENT EXAMINER